



WHY YOU SHOULD CARE!

I live in the Morongo Basin – Why should I care about wildlife linkages?

The linkage design process includes both wildlife and people. Our researchers hosted many focus groups and public meetings, where we asked people what they valued about living in the desert. The answers showed a desire for a certain quality of life – wide open spaces, wildlife, closeness to nature, clean air, beautiful views, quiet, and a small-town desert feel.

Maintaining wildlife linkages assures that nature and open space will remain in our backyards, as well as in the public preserves they connect.

I have a business and work in the Morongo Basin – Why should I care about wildlife linkages?

The same quality-of-life values that individuals cherish also support our economic interests, including tourism and the desirability of our area as a relocation or retirement destination. By delineating areas where development has less impact on the environment, linkage design encourages development that is in harmony with the values of those who live here.

The 29 Palms Marine Base is another driver of our economy. The base manages its lands under the federal laws that protect species and the environment. It is important to the base's mission that its vast territory stays connected to the rest of the desert, and does not become an ecological island. Therefore, the base is a strong supporter, along with Joshua Tree National Park, of regional conservation planning to protect the linkage design.

WHAT YOU CAN DO

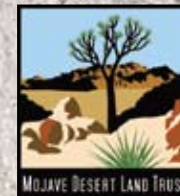
What can I do as an individual to support animal roaming?

Become a steward of your land and its surroundings:

- Use water-thrifty plants compatible with our arid environment (natives are best)
- Avoid or eradicate known aggressive weed species such as fountain grass and Sahara mustard
- Avoid the use of synthetic insecticides and rodenticides (e.g., De-Con) that provide toxic meals to predatory mammals and birds
- Minimize artificial night lighting by shielding and focusing light toward the house
- Keep domestic cats and dogs confined to prevent predation of native wildlife
- Confine domestic animals for their own safety
- Keep pet food indoors and do not feed wildlife. Feeding wildlife weakens individuals, artificially inflates species populations, subsidizes opportunistic species like raccoons and ravens, and destroys the natural dynamics of a healthy ecosystem
- Be a friend to animals – keep them wild!
- Keep grading to a minimum and preserve natural habitats – even small areas are used by desert critters
- Use wildlife friendly fencing; fence your pets in, not wildlife out
- Never dispose of hazardous substances (oil, paint, etc.) carelessly.



This brochure is a publication of the Mojave Desert Land Trust, www.mojavedesertlandtrust.org, made possible by a generous grant from **Toyota Motor Sales USA**.



Related links:
Morongo Basin Open Space Group: www.mbopenspacegroup.org
South Coast Wildlands: www.scwildlands.org
Freedom to Roam: www.freedomtoroam.org
Western Governors Association: Wildlife Corridors and Crucial Habitat Initiative: www.westgov.org

WILDLIFE LINKAGES

Preserving Nature's Highways



What are Wildlife Linkages?

As big as it is, Joshua Tree National Park is but one small piece of the vastness called the Mojave Desert. The animals who live here, both large and small, depend for their health and survival on the ability to move across great distances, beyond the borders of the park. They need to do this in order to hunt, to mate, to build nests and dens, and all the other activities necessary for survival.

As the desert gets developed with homes, businesses and highways, it becomes harder for desert animals to move about freely. That's why wildlife linkages are so important. Linkages are natural highways between our protected desert parks, wilderness areas, forests and military bases. Without wildlife linkages, these protected lands could become islands of aging plant and animal communities, lacking vitality and adaptability. Eventually, healthy animal populations would become isolated, threatened and weakened.

Who Designs Linkages?

Linkage design is a collaborative scientific process involving biologists, planners and resource managers. These researchers collect a variety of data on selected species, vegetation and terrain, and analyze it in a computer. The computer creates a map based on the data, showing the best locations for linkages for different species. The map is then re-checked for accuracy in the field before a final design is reached.

What Is The Goal of a Wildlife Linkage?

The goal is to provide safe passage for wildlife between protected areas. In addition to a natural highway, many species also need islands of live-in habitat equal to their home ranges. Generally the heart of the linkage is a desert wash.

Are Nature's Highways Essential?

Nature needs room to roam:

- Individuals need to find food, shelter and mates
- Offspring need to disperse – seeds on the wind, pollen in the air, fledgling birds to new homes
- The gene pools of populations need enrichment
- Territory needs to be colonized or reclaimed
- Hard times need to be escaped or avoided – drought, fire, seasonal shortages, and climate change

Why a Wash?

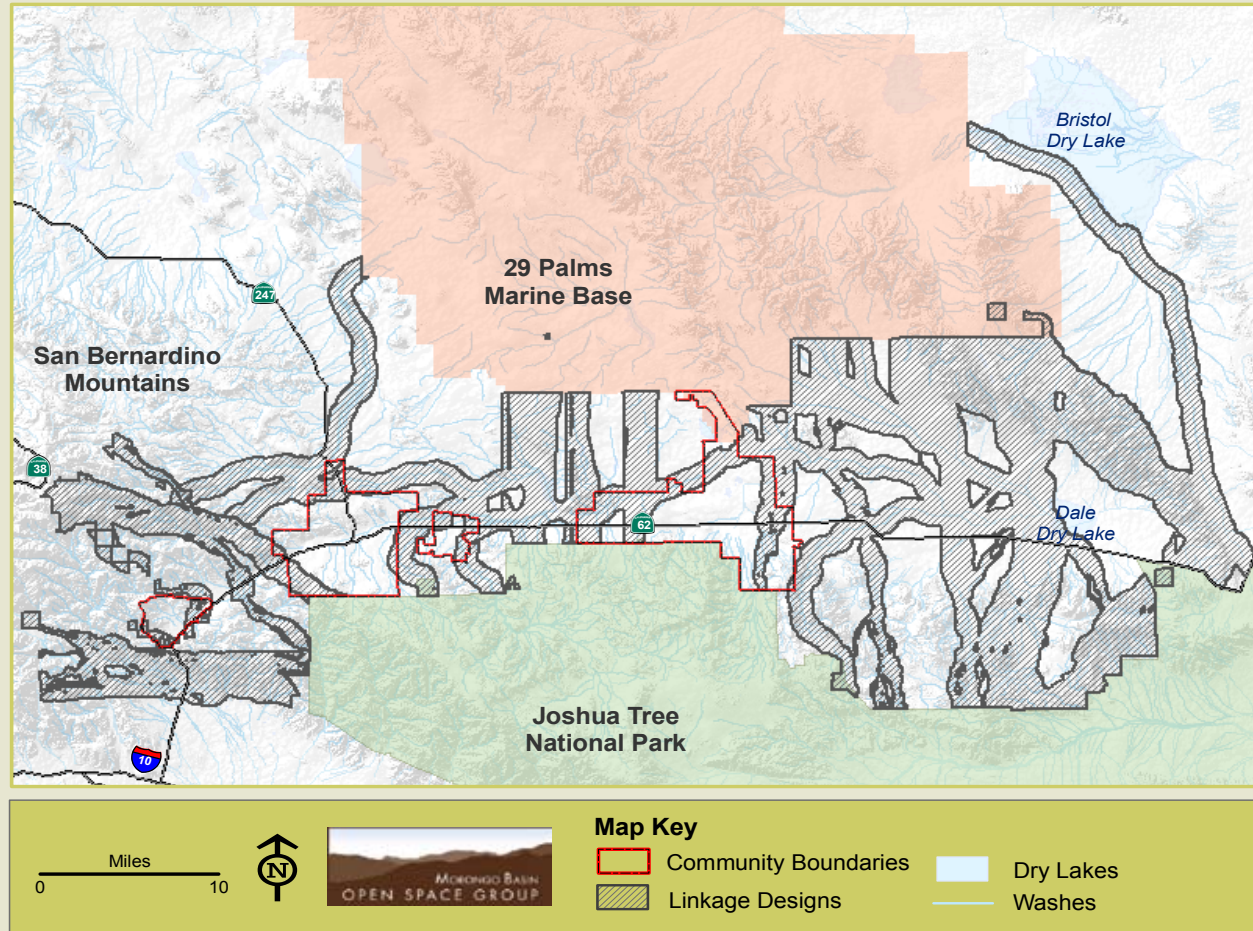
- Washes make connections across the landscape, providing food, cover, nesting and movement corridors
- Washes funnel air currents supporting pollen, seeds, birds, and insects
- Washes recycle, store, and carry nutrients and sediment throughout the watershed
- Washes dissipate the energy of floods reducing erosion and improving water quality
- Washes are the circulation system of our watersheds

Why Are The Linkages So Wide?

Each linkage must be at least 1.2 miles wide in order to meet specific ecological goals:

- Availability of appropriate habitat for host plants (butterflies) and pollinators
- Areas with enough space and cover to avoid predation.
- Ample room for the natural disturbance of floods
- Buffer against the edge effects of urban development, roads, and OHV disturbance
- Allow for response to climate change

MORONGO BASIN WILDLIFE LINKAGE DESIGNS



The linkages cover a good part of the Basin. Does this mean we can no longer develop?

Development and growth will happen. But as you look at the Linkage Design it is helpful to realize that:

- The linkage design is meant to offer guidance to community planners, not a new requirement
- 70% of the design is already protected (mostly BLM land) and in the public domain
- Existing zoning is generally one dwelling per 2.5 acres or larger
- Some areas are mapped by FEMA as flood zones
- Overlay zones can be developed that protect the land owner's rights while allowing for the continued movement of wildlife
- Overlay zones can increase the value and desirability of the property

Where are wildlife linkages found in the Morongo Basin?

- Joshua Tree – Twentynine Palms Connection (Joshua Tree National Park to the 29 Palms Marine Base)
- San Bernardino – Little San Bernardino Connection

What are the focal species and why were they chosen?

In an effort to create an accurate cross-section of desert wildlife and plant life, focal species were chosen based on the diversity of their movement needs and living requirements. For example:



- Mountain lion and badger need large tracts of land
- Fringe-toed lizards have limited but specific needs (sand dunes) and space requirements
- Bighorn sheep can move miles in a day while desert tortoise may take generations
- The distance different species move from their breeding areas ranges from about 300 feet to 170 miles
- Modes of travel include flying, swimming, climbing, walking, and slithering

25 Focal species for the Joshua Tree – Twentynine Palms Connection

- **Plants:** Desert lily, Black-brush, Jojoba, Mojave yucca, and Desert willow
- **Invertebrates:** Alkali fairy shrimp, Meloid beetle, Velvet ant, Ford's swallowtail butterfly
- **Reptiles:** Rosy boa, Chuckwalla, Mojave fringe-toed lizard, Desert tortoise
- **Birds:** Burrowing owl, Black-tailed gnatcatcher, LeConte's thrasher, Black-throated sparrow, Loggerhead shrike,
- **Mammals:** Desert kangaroo rat, Merriam's kangaroo rat, Round-tailed ground squirrel, Bighorn sheep, American badger, Bobcat, Mountain lion

23 Focal species for the San Bernardino – Little San Bernardino Connection

- **Plants:** Joshua tree, White alder
- **Invertebrates:** Metalmark butterfly, Green hairstreak butterfly, Tarantula hawk
- **Reptiles & Amphibians:** California tree frog, Coast horned lizard, Chaparral whip snake, Speckled rattlesnake
- **Birds:** Cactus wren, Rock wren, Wrentit, Mountain quail
- **Mammals:** Little pocket mouse, Pacific kangaroo rat, Merriam's kangaroo rat, Large-eared wood rat, Antelope ground squirrel, Mule deer, Nelson's bighorn sheep, American badger, Mountain lion

